

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1318009

Luminaire Tested: P3SQAS13R359835DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1318009  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS13R359835DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R35 optic, 3500K CCT AND, 98CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

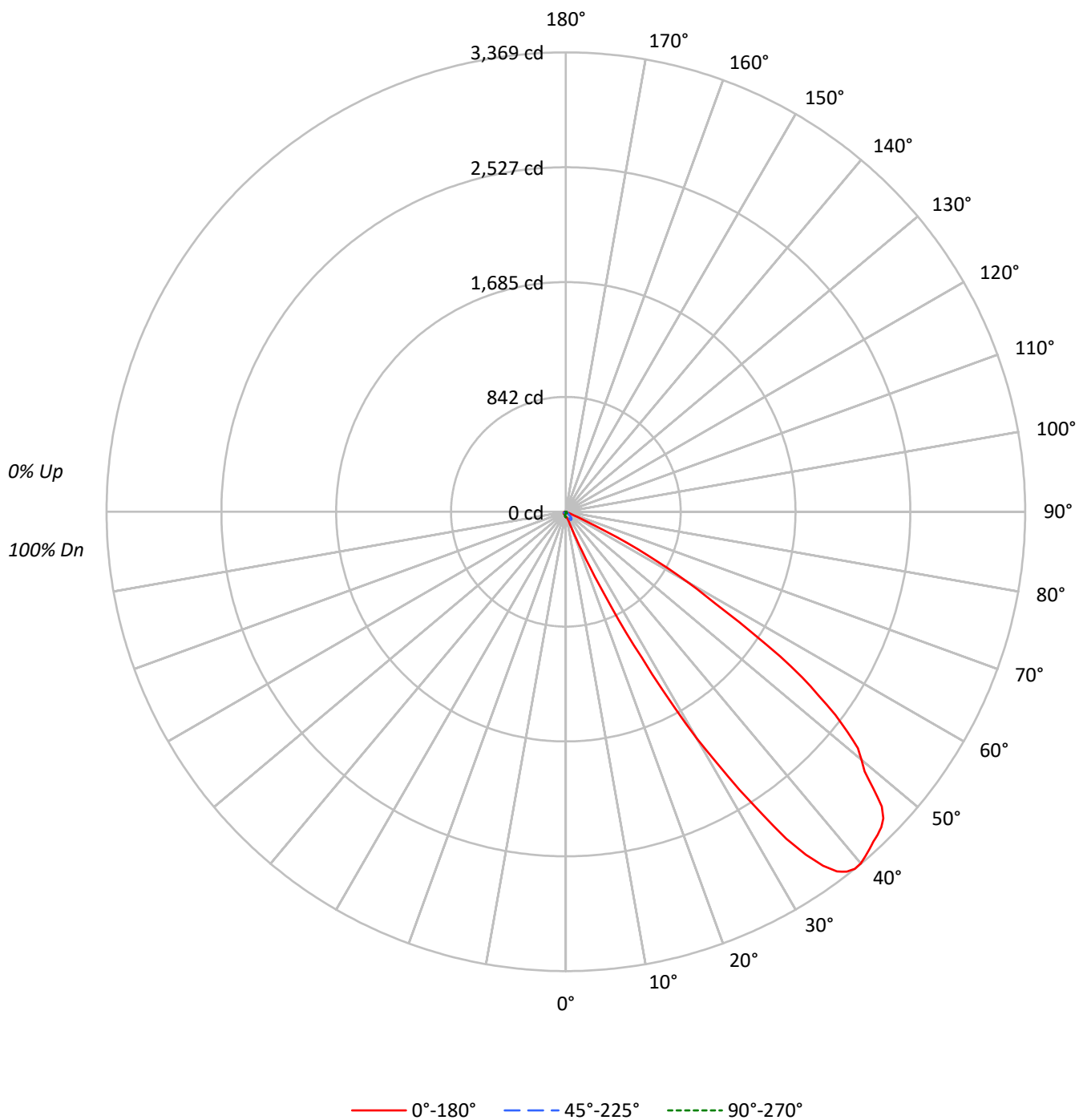
Lumens per Lamp: N/A  
Luminaire Lumens: 839.0 lumens  
Efficiency: N/A  
Efficacy: 57.9 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |     |     |     |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 100 | 97  | 94  |  | 96  | 93  | 91  |  | 92  | 90  | 89  | 87  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  | 78  | 75  | 73  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  | 67  | 63  | 61  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  |  | 64  | 58  | 53  |  | 62  | 57  | 52  | 50  |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  |  | 56  | 50  | 44  |  | 55  | 49  | 44  | 42  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  |  | 50  | 43  | 37  |  | 48  | 42  | 37  | 35  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  |  | 44  | 37  | 31  |  | 42  | 36  | 31  | 29  |
| 8   | 57  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 27  |  | 39  | 32  | 26  |  | 38  | 31  | 26  | 24  |
| 9   | 52  | 38  | 29  | 23  | 50  | 37  | 29  | 23  | 36  | 28  | 23  |  | 35  | 28  | 22  |  | 34  | 27  | 22  | 20  |
| 10  | 48  | 34  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 25  | 19  |  | 31  | 24  | 19  |  | 30  | 24  | 19  | 17  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 6648   | 6648  | 6648 | 6648 | 6648  |
| 5°  | 7209   | 7071  | 6552 | 5895 | 5757  |
| 10° | 7555   | 6890  | 5823 | 5037 | 5037  |
| 15° | 10805  | 6757  | 4725 | 4315 | 4457  |
| 20° | 27070  | 7221  | 3739 | 3739 | 4160  |
| 25° | 125646 | 9216  | 2869 | 3458 | 3877  |
| 30° | 381961 | 12509 | 2267 | 3162 | 3918  |
| 35° | 645536 | 14486 | 1913 | 3028 | 3826  |
| 40° | 756701 | 14299 | 1529 | 3058 | 4092  |
| 45° | 796903 | 10156 | 1291 | 3312 | 4433  |
| 50° | 758539 | 6082  | 1206 | 3456 | 4876  |
| 55° | 635623 | 2492  | 1351 | 3873 | 5675  |
| 60° | 355846 | 517   | 1550 | 4443 | 6269  |
| 65° | 61412  | 326   | 1549 | 4931 | 7091  |
| 70° | 1158   | 403   | 1913 | 5338 | 8006  |
| 75° | 998    | 532   | 2529 | 6055 | 9050  |
| 80° | 793    | 793   | 2975 | 6744 | 10513 |
| 85° | 0      | 1581  | 5928 | 7509 | 12054 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 802531 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 3.5    | 0.4       |
| 10°-20°   | 9.9    | 1.2       |
| 20°-30°   | 51.5   | 6.1       |
| 30°-40°   | 222.3  | 26.5      |
| 40°-50°   | 317.1  | 37.8      |
| 50°-60°   | 196.4  | 23.4      |
| 60°-70°   | 29.9   | 3.6       |
| 70°-80°   | 5.6    | 0.7       |
| 80°-90°   | 2.8    | 0.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 64.9   | 7.7       |
| 0°-40°    | 287.2  | 34.2      |
| 0°-60°    | 800.7  | 95.4      |
| 0°-90°    | 839.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 839.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 39   | 39  | 39  | 39   | 39   |      |
| 5°  | 42   | 41  | 38  | 34   | 33   | 4    |
| 15° | 61   | 38  | 26  | 24   | 25   | 22   |
| 25° | 661  | 48  | 15  | 18   | 20   | 396  |
| 35° | 3070 | 69  | 9   | 14   | 18   | 1844 |
| 45° | 3272 | 42  | 5   | 14   | 18   | 2472 |
| 55° | 2117 | 8   | 4   | 13   | 19   | 1803 |
| 65° | 151  | 1   | 4   | 12   | 17   | 308  |
| 75° | 2    | 1   | 4   | 9    | 14   | 2    |
| 85° | 0    | 1   | 3   | 4    | 6    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 45°  | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|-------|------|-------|------|--------|
| 0°    | 38.6   | 38.6   | 38.6   | 38.6   | 38.6   | 38.6   | 38.6  | 38.6 | 38.6  | 38.6 | 38.6   |
| 2.5°  | 40.1   | 40.1   | 40.1   | 40.1   | 40.1   | 40.1   | 40.1  | 40.1 | 40.1  | 38.6 | 37.9   |
| 5°    | 41.7   | 41.7   | 40.9   | 40.9   | 40.9   | 40.9   | 40.9  | 40.9 | 39.4  | 37.9 | 35.6   |
| 7.5°  | 42.4   | 42.4   | 41.7   | 41.7   | 41.7   | 41.7   | 40.9  | 40.1 | 38.6  | 35.6 | 33.3   |
| 10°   | 43.2   | 43.2   | 43.2   | 43.2   | 42.4   | 41.7   | 40.9  | 39.4 | 37.1  | 33.3 | 31.1   |
| 12.5° | 48.5   | 48.5   | 47.7   | 46.2   | 44.7   | 43.2   | 41.7  | 38.6 | 34.1  | 30.3 | 28.0   |
| 15°   | 60.6   | 59.8   | 58.3   | 56.0   | 53.0   | 49.2   | 46.2  | 37.9 | 31.1  | 26.5 | 25.0   |
| 17.5° | 84.8   | 83.3   | 81.0   | 73.5   | 66.6   | 59.8   | 53.8  | 37.9 | 28.0  | 23.5 | 22.0   |
| 20°   | 147.7  | 148.4  | 132.5  | 114.4  | 99.2   | 82.6   | 67.4  | 39.4 | 25.0  | 20.4 | 19.7   |
| 22.5° | 308.3  | 296.1  | 258.3  | 214.3  | 163.6  | 126.5  | 95.4  | 43.2 | 22.0  | 17.4 | 17.4   |
| 25°   | 661.2  | 615.0  | 523.3  | 395.4  | 278.7  | 197.7  | 138.6 | 48.5 | 19.7  | 15.1 | 15.9   |
| 27.5° | 1207.3 | 1165.6 | 981.6  | 739.2  | 490.8  | 298.4  | 187.8 | 55.3 | 17.4  | 12.9 | 14.4   |
| 30°   | 1920.7 | 1805.6 | 1565.5 | 1211.8 | 820.2  | 456.7  | 252.2 | 62.9 | 14.4  | 11.4 | 13.6   |
| 31°   | 2143.4 | 2090.4 | 1798.0 | 1401.9 | 961.1  | 542.3  | 279.5 | 65.1 | 13.6  | 11.4 | 12.9   |
| 32°   | 2407.7 | 2313.8 | 2051.7 | 1610.2 | 1104.3 | 618.8  | 312.0 | 67.4 | 12.9  | 9.8  | 12.9   |
| 33°   | 2644.0 | 2553.1 | 2234.3 | 1793.5 | 1248.9 | 705.9  | 346.9 | 68.2 | 11.4  | 9.8  | 12.1   |
| 34°   | 2892.4 | 2768.2 | 2452.4 | 1985.1 | 1397.4 | 799.8  | 378.7 | 68.9 | 10.6  | 9.1  | 12.1   |
| 35°   | 3070.4 | 2946.2 | 2640.2 | 2136.6 | 1525.4 | 883.1  | 415.0 | 68.9 | 9.8   | 9.1  | 11.4   |
| 36°   | 3208.2 | 3099.2 | 2802.3 | 2292.6 | 1652.6 | 958.1  | 443.8 | 68.9 | 8.3   | 8.3  | 11.4   |
| 37°   | 3302.9 | 3199.2 | 2911.4 | 2426.6 | 1749.5 | 1024.7 | 469.6 | 68.9 | 7.6   | 8.3  | 11.4   |
| 38°   | 3349.1 | 3262.8 | 3016.6 | 2524.3 | 1843.5 | 1077.0 | 490.0 | 67.4 | 6.8   | 7.6  | 10.6   |
| 39°   | 3368.8 | 3298.4 | 3081.0 | 2606.9 | 1913.9 | 1122.4 | 505.2 | 65.9 | 6.1   | 7.6  | 10.6   |
| 40°   | 3365.8 | 3304.4 | 3117.4 | 2663.7 | 1970.7 | 1153.5 | 513.5 | 63.6 | 5.3   | 6.8  | 10.6   |
| 41°   | 3348.4 | 3295.3 | 3136.3 | 2712.2 | 2004.8 | 1174.7 | 515.8 | 61.3 | 4.5   | 6.8  | 9.8    |
| 42°   | 3328.7 | 3280.2 | 3142.4 | 2737.9 | 2026.7 | 1181.5 | 509.7 | 58.3 | 4.5   | 6.1  | 9.8    |
| 43°   | 3308.2 | 3263.5 | 3142.4 | 2746.2 | 2032.0 | 1177.0 | 499.9 | 53.0 | 3.8   | 6.1  | 9.8    |
| 44°   | 3291.6 | 3249.1 | 3132.5 | 2744.0 | 2020.7 | 1159.5 | 481.7 | 47.0 | 3.0   | 6.1  | 9.8    |
| 45°   | 3271.9 | 3230.2 | 3119.6 | 2729.6 | 1998.7 | 1130.0 | 459.0 | 41.7 | 2.3   | 5.3  | 9.8    |
| 46°   | 3237.0 | 3204.5 | 3096.9 | 2700.0 | 1963.9 | 1089.1 | 430.2 | 37.9 | 1.5   | 5.3  | 9.1    |
| 47°   | 3169.6 | 3141.6 | 3053.0 | 2656.1 | 1917.7 | 1040.6 | 400.7 | 34.1 | 1.5   | 5.3  | 9.1    |
| 48°   | 3034.1 | 3033.3 | 2965.1 | 2574.3 | 1844.2 | 980.0  | 369.6 | 30.3 | 1.5   | 5.3  | 9.1    |
| 49°   | 2903.0 | 2889.4 | 2804.6 | 2430.4 | 1738.9 | 907.3  | 337.0 | 27.3 | 0.8   | 5.3  | 9.1    |
| 50°   | 2831.1 | 2801.5 | 2662.2 | 2260.8 | 1604.1 | 806.6  | 302.2 | 22.7 | 0.8   | 4.5  | 9.1    |
| 51°   | 2756.1 | 2713.7 | 2549.3 | 2107.8 | 1443.6 | 709.7  | 264.3 | 18.2 | 0.8   | 4.5  | 8.3    |
| 52°   | 2620.5 | 2580.4 | 2396.3 | 1961.6 | 1287.5 | 610.4  | 228.0 | 15.1 | 0.8   | 4.5  | 9.1    |
| 53°   | 2474.4 | 2416.8 | 2216.8 | 1801.0 | 1150.5 | 522.6  | 190.9 | 12.9 | 0.8   | 4.5  | 8.3    |
| 54°   | 2290.3 | 2264.6 | 2035.1 | 1604.1 | 989.9  | 437.8  | 156.8 | 10.6 | 0.8   | 4.5  | 8.3    |
| 55°   | 2116.9 | 2079.0 | 1840.4 | 1402.7 | 844.5  | 359.0  | 131.0 | 8.3  | 0.8   | 4.5  | 8.3    |
| 56°   | 1895.7 | 1838.9 | 1615.5 | 1217.9 | 696.8  | 289.3  | 110.6 | 6.8  | 0.8   | 4.5  | 8.3    |
| 57°   | 1632.1 | 1571.6 | 1395.1 | 1012.6 | 546.8  | 220.4  | 92.4  | 5.3  | 0.8   | 4.5  | 8.3    |
| 58°   | 1380.7 | 1328.4 | 1139.1 | 781.6  | 412.0  | 153.0  | 76.5  | 3.8  | 0.8   | 3.8  | 8.3    |
| 59°   | 1192.9 | 1135.3 | 947.5  | 601.4  | 286.3  | 112.8  | 57.6  | 3.0  | 0.8   | 4.5  | 8.3    |
| 60°   | 1033.1 | 958.8  | 762.7  | 465.8  | 204.5  | 81.0   | 42.4  | 1.5  | 1.5   | 4.5  | 8.3    |
| 62.5° | 595.3  | 525.6  | 364.3  | 189.3  | 84.1   | 41.7   | 20.4  | 0.8  | 1.5   | 4.5  | 8.3    |
| 65°   | 150.7  | 134.1  | 87.1   | 40.9   | 23.5   | 14.4   | 7.6   | 0.8  | 1.5   | 3.8  | 7.6    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 5.3 | 5.3 | 5.3 | 4.5 | 3.8 | 3.0 | 1.5 | 0.8 | 1.5   | 3.8 | 7.6    |
| 70°   | 2.3 | 2.3 | 2.3 | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 1.5   | 3.8 | 6.8    |
| 72.5° | 1.5 | 1.5 | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.8 | 6.1    |
| 75°   | 1.5 | 1.5 | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.8 | 6.1    |
| 77.5° | 1.5 | 1.5 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.0 | 5.3    |
| 80°   | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.0 | 4.5    |
| 82.5° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.3   | 3.0 | 3.8    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.8 | 2.3   | 3.0 | 3.0    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 2.3   | 3.0 | 2.3    |
| 90°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0 | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 38.6 | 38.6   | 38.6 |
| 2.5°  | 36.4 | 36.4   | 36.4 |
| 5°    | 34.1 | 34.1   | 33.3 |
| 7.5°  | 31.8 | 31.1   | 31.1 |
| 10°   | 28.8 | 28.8   | 28.8 |
| 12.5° | 26.5 | 26.5   | 26.5 |
| 15°   | 24.2 | 25.0   | 25.0 |
| 17.5° | 22.0 | 23.5   | 23.5 |
| 20°   | 20.4 | 22.0   | 22.7 |
| 22.5° | 18.9 | 20.4   | 21.2 |
| 25°   | 18.2 | 19.7   | 20.4 |
| 27.5° | 16.7 | 18.9   | 20.4 |
| 30°   | 15.9 | 18.2   | 19.7 |
| 31°   | 15.9 | 18.2   | 18.9 |
| 32°   | 15.1 | 18.2   | 18.9 |
| 33°   | 15.1 | 18.2   | 18.9 |
| 34°   | 15.1 | 17.4   | 18.9 |
| 35°   | 14.4 | 17.4   | 18.2 |
| 36°   | 14.4 | 17.4   | 18.2 |
| 37°   | 14.4 | 17.4   | 18.9 |
| 38°   | 14.4 | 17.4   | 18.2 |
| 39°   | 13.6 | 17.4   | 18.2 |
| 40°   | 13.6 | 17.4   | 18.2 |
| 41°   | 13.6 | 17.4   | 18.2 |
| 42°   | 13.6 | 17.4   | 18.2 |
| 43°   | 13.6 | 17.4   | 18.2 |
| 44°   | 13.6 | 16.7   | 18.2 |
| 45°   | 13.6 | 16.7   | 18.2 |
| 46°   | 13.6 | 17.4   | 18.2 |
| 47°   | 13.6 | 17.4   | 18.9 |
| 48°   | 13.6 | 16.7   | 18.2 |
| 49°   | 12.9 | 16.7   | 18.2 |
| 50°   | 12.9 | 16.7   | 18.2 |
| 51°   | 12.9 | 17.4   | 18.9 |
| 52°   | 12.9 | 17.4   | 18.9 |
| 53°   | 12.9 | 17.4   | 18.9 |
| 54°   | 12.9 | 17.4   | 18.2 |
| 55°   | 12.9 | 17.4   | 18.9 |
| 56°   | 12.9 | 17.4   | 18.2 |
| 57°   | 12.9 | 17.4   | 18.2 |
| 58°   | 12.9 | 16.7   | 18.2 |
| 59°   | 12.9 | 16.7   | 18.2 |
| 60°   | 12.9 | 16.7   | 18.2 |
| 62.5° | 12.1 | 16.7   | 18.2 |
| 65°   | 12.1 | 15.9   | 17.4 |





TEST NUMBER: P1318009

CATALOG NUMBER: P3SQAS13R359835DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 11.4 | 15.9   | 16.7 |
| 70°   | 10.6 | 15.1   | 15.9 |
| 72.5° | 9.8  | 14.4   | 15.1 |
| 75°   | 9.1  | 12.9   | 13.6 |
| 77.5° | 7.6  | 11.4   | 12.9 |
| 80°   | 6.8  | 9.8    | 10.6 |
| 82.5° | 5.3  | 8.3    | 9.1  |
| 85°   | 3.8  | 6.1    | 6.1  |
| 87.5° | 1.5  | 3.0    | 3.0  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)